

# United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,594	06/06/2001	Srinivas V.R. Gutta	US010125	7185
24737	7590 05/20/2005		EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS			WOO, ISAAC M	
P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			ART UNIT	PAPER NUMBER
	,		2162	
			DATE MAILED: 05/20/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	
Office Action Commons	09/875,594	. GUTTA ET AL.	
Office Action Summary	Examiner	Art Unit	
	Isaac M Woo	2162	
The MAILING DATE of this communication appearing for Reply	pears on the cover sheet with t	he correspondence address	
A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a rep - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b).	136(a). In no event, however, may a reply ly within the statutory minimum of thirty (30 will apply and will expire SIX (6) MONTHS e, cause the application to become ABANE	be timely filed  ) days will be considered timely. from the mailing date of this communication.  ONED (35 U.S.C. § 133).	
Status			
1) Responsive to communication(s) filed on <u>02 N</u>	<u> 1arch 2005</u> .		
2a) ☐ This action is <b>FINAL</b> . 2b) ☐ This	s action is non-final.	•	
3) Since this application is in condition for allowated closed in accordance with the practice under the condition of the condition.	The state of the s	•	
Disposition of Claims			
4)⊠ Claim(s) <u>1-3,9-11 and 17-19</u> is/are pending in	the application		
4a) Of the above claim(s) is/are withdra			
5) Claim(s) is/are allowed.			
6)⊠ Claim(s) <u>1-3,9-11 and 17-19</u> is/are rejected.			
7) Claim(s) is/are objected to.			
8) Claim(s) are subject to restriction and/o	or election requirement.		
Application Papers			
9) The specification is objected to by the Examine	er.		
10) The drawing(s) filed on is/are: a) acc	cepted or b) objected to by t	he Examiner.	
Applicant may not request that any objection to the	drawing(s) be held in abeyance.	See 37 CFR 1.85(a).	
Replacement drawing sheet(s) including the correct	tion is required if the drawing(s) i	s objected to. See 37 CFR 1.121(d).	
11)☐ The oath or declaration is objected to by the E	xaminer. Note the attached Of	fice Action or form PTO-152.	
Priority under 35 U.S.C. § 119			
<ul> <li>12) ☐ Acknowledgment is made of a claim for foreign</li> <li>a) ☐ All b) ☐ Some * c) ☐ None of:</li> <li>1. ☐ Certified copies of the priority document</li> </ul>		9(a)-(d) or (f).	
2. Certified copies of the priority document		ication No	
3. Copies of the certified copies of the price application from the International Burea	· ·	eived in this National Stage	
* See the attached detailed Office action for a list	, ,,	eived.	
	•		
Attachment(s)			
1) Notice of References Cited (PTO-892)	4) Interview Sumi	nary (PTO-413)	
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/M	ail Date	
<ol> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)</li> <li>Paper No(s)/Mail Date</li> </ol>	6) Other:	nal Patent Application (PTO-152)	

Application/Control Number: 09/875,594 Page 2

Art Unit: 2162

### **DETAILED ACTION**

1. This action is in response to Applicant's amendments, filed on March 02, 2005 have been considered but they are not persuasive.

2. Claims 1-3, 9-11 and 17-19 are pending.

## Response to Arguments

3. In response to Applicant's remark filed on March 02, 2005, applicant argues that Vanechanos and/or Apte not disclose or suggest, determining a second program record of the plurality of program records that qualifies as a nearest neighbor of the first program record using the feature value, the key fields of the plurality of program records and a distance measurement method; and generating a recommendation of the first program based on the second program record. However, examiner does not agree. The claim limitation that applicant argues are interpreted as, getting nearest neighbor search result (second program record) from the plurality of program records by searching input (the first program record) of feature value converted from key field, and by search method of distance measurement. Vanechanos discloses, the first program record as a searching inputs (80, item #, 82 topic, 84, description, fig. 5, col. 7, lines 53-67) which are also key fields (80, item #, 82 topic, 84, description, fig. 5, col. 7, lines 53-67) that are converted into a feature value (item # =1, topic= 2, description=3) from col. 8, lines

Application/Control Number: 09/875,594 Page 3

Art Unit: 2162

22-67, for instance, item number is converted to feature value 2, col. 11, lines 15-41), and getting search results (generating recommendation of the first program based on the second program). Apte discloses the actual method of searching, "number of clusters k must be specified prior to application. The summary statistic is a mean of the values for each cluster. The individual members of the cluster can have a high variance and the mean may not be a good summary of the nearest neighbor that are typically found a search procedure, see (col. 2, lines 17-29). And where only the k best keywords of each document are indexed. This reduces the vector size of a document, as well as the computation time for distance measures for a clustering for a clustering method", see (col. 4, lines 21-41). This teaches that data clustering based on nearest neighbor and distance method. Thus, Vanechanos and/or Apte disclose or suggest, determining a second program record of the plurality of program records that qualifies as a nearest neighbor of the first program record using the feature value, the key fields of the plurality of program records and a distance measurement method; and generating a recommendation of the first program based on the second program record.

### Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

<sup>(</sup>a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 2162

5. Claims 1-3, 9-11 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanechanos, Jr. (U.S. Patent No. 5,884,309, hereinafter, "Vanechanos") in view of Apte et al (U.S. Patent No. 6,654,739, hereinafter, "Apte").

With respect to claim 1, Vanechanos discloses, receiving a first program record (80, item #, 82, topic, 84, description, fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21) corresponding to a first program, wherein the first program record includes at least one key field (for instance, item #, topic, description, fig. 5), (fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21, each search parameter (key field) is inputted from fig. 5), retrieving a plurality of program records from a database (92, search, fig. 5, by clicking search button), wherein at least one of the program records includes at least one key field (for instance, item #, topic, description, fig. 5), converting each key field of the first program record (item #, topic, description, fig. 5) into a feature value (item # =1, topic=2, description=3, col. 8, lines 22-67, for instance, item number is converted to feature value 2, col. 11, lines 15-41); determining a second, that qualifies record using the feature value, (col. 8, lines 22-67 to col. 9, lines 1-18), the key fields of the plurality of program, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18), generating a recommendation of the first program based on the second program record, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18). Vanechanos does not explicitly disclose records that qualifies as a nearest neighbor of the first program record, a distance measurement method. However, Apte discloses, "number of clusters k must be

Art Unit: 2162

specified prior to application. The summary statistic is a mean of the values for each cluster. The individual members of the cluster can have a high variance and the mean may not be a good summary of the nearest neighbor that are typically found I a search procedure, see (col. 2, lines 17-29). And where only the k best keywords of each document are indexed. This reduces the vector size of a document, as well as the computation time for distance measures for a clustering for a clustering method, see (col. 4, lines 21-41). This teaches that data clustering based on nearest neighbor and distance method. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify Vanechanos by incorporating records that qualifies as a nearest neighbor of the first program record, a distance measurement method with the system of Apte. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Vanechanos' system the enhanced data retrieval capability with nearest neighbor and distance measure method in the data retrieval system.

With respect to claim 2, Vanechanos discloses, receiving a first program record (80, item #, 82, topic, 84, description, fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21) corresponding to a first program, wherein the first program record includes at least one key field (for instance, item #, topic, description, fig. 5), (fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21, each search parameter (key field) is inputted from fig. 5), retrieving a plurality of program records from a database (92, search, fig. 5, by clicking search

Art Unit: 2162

button), wherein at least one of the program records includes at least one key field (for instance, item #, topic, description, fig. 5), converting each key field of the first program record (item #, topic, description, fig. 5) into a feature value (item # =1, topic=2, description=3, col. 8, lines 22-67, for instance, item number is converted to feature value 2, col. 11, lines 15-41); determining a N number program records of the plurality of program records (90, limit search to, fig. 5, "limit search" specifies one, N, cluster program records search results) that qualifies record using the feature value, (col. 8, lines 22-67 to col. 9, lines 1-18), the key fields of the plurality of program, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18), generating a recommendation of the first program based on the second program record, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18). Vanechanos does not explicitly disclose records that qualifies as a nearest neighbor of the first program record, a distance measurement method. However, Apte discloses, "number of clusters k must be specified prior to application. The summary statistic is a mean of the values for each cluster. The individual members of the cluster can have a high variance and the mean may not be a good summary of the nearest neighbor that are typically found I a search procedure, see (col. 2, lines 17-29). And where only the k best keywords of each document are indexed. This reduces the vector size of a document, as well as the computation time for distance measures for a clustering for a clustering method, see (col. 4, lines 21-41). This teaches that data clustering based on nearest neighbor and distance method. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify Vanechanos by incorporating records that

Art Unit: 2162

qualifies as a nearest neighbor of the first program record, a distance measurement method with the system of Apte. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Vanechanos' system the enhanced data retrieval capability with nearest neighbor and distance measure method in the data retrieval system.

With respect to claim 3, Vanechanos discloses, receiving a first program record (80, item #, 82, topic, 84, description, fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21) corresponding to a first program, wherein the first program record includes at least one key field (for instance, item #, topic, description, fig. 5), (fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21, each search parameter (key field) is inputted from fig. 5), retrieving a plurality of program records from a database (92, search, fig. 5, by clicking search button), wherein at least one of the program records includes at least one key field (for instance, item #, topic, description, fig. 5), converting each key field of the first program record (item #, topic, description, fig. 5) into a feature value (item # =1, topic=2, description=3, col. 8, lines 22-67, for instance, item number is converted to feature value 2, col. 11, lines 15-41); determining a cluster program records of the plurality of program records (90, limit search to, fig. 5, "limit search" specifies one, N, cluster program records search results) that qualifies record using the feature value, (col. 8, lines 22-67 to col. 9, lines 1-18), the key fields of the plurality of program, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18), generating a recommendation of the first program based on the second program record, see (col. 7, lines 27-67 to col. 8,

Art Unit: 2162

lines 1-67 to col. 9, lines 1-18). Vanechanos does not explicitly disclose records that qualifies as a nearest neighbor of the first program record, a distance measurement method. However, Apte discloses, "number of clusters k must be specified prior to application. The summary statistic is a mean of the values for each cluster. The individual members of the cluster can have a high variance and the mean may not be a good summary of the nearest neighbor that are typically found I a search procedure, see (col. 2, lines 17-29). And where only the k best keywords of each document are indexed. This reduces the vector size of a document, as well as the computation time for distance measures for a clustering for a clustering method, see (col. 4, lines 21-41). This teaches that data clustering based on nearest neighbor and distance method. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify Vanechanos by incorporating records that qualifies as a nearest neighbor of the first program record, a distance measurement method with the system of Apte. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Vanechanos' system the enhanced data retrieval capability with nearest neighbor and distance measure method in the data retrieval system.

With respect to claim 9, Vanechanos discloses, receiving a first program record (80, item #, 82, topic, 84, description, fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21) corresponding to a first program, wherein the first program record includes at least one key field (for instance, item #, topic, description, fig. 5), (fig. 5, col. 7, lines 53-67 to col.

8, lines 1-21, each search parameter (key field) is inputted from fig. 5), retrieving a plurality of program records from a database (92, search, fig. 5, by clicking search button), wherein at least one of the program records includes at least one key field (for instance, item #, topic, description, fig. 5), converting each key field of the first program record (item #, topic, description, fig. 5) into a feature value (item # =1, topic=2, description=3, col. 8, lines 22-67, for instance, item number is converted to feature value 2, col. 11, lines 15-41); determining a second, that qualifies record using the feature value, (col. 8, lines 22-67 to col. 9, lines 1-18), the key fields of the plurality of program, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18), generating a recommendation of the first program based on the second program record, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18). Vanechanos does not explicitly disclose records that qualifies as a nearest neighbor of the first program record, a distance measurement method. However, Apte discloses, "number of clusters k must be specified prior to application. The summary statistic is a mean of the values for each cluster. The individual members of the cluster can have a high variance and the mean may not be a good summary of the nearest neighbor that are typically found I a search procedure, see (col. 2, lines 17-29). And where only the k best keywords of each document are indexed. This reduces the vector size of a document, as well as the computation time for distance measures for a clustering for a clustering method, see (col. 4, lines 21-41). This teaches that data clustering based on nearest neighbor and distance method. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify Vanechanos by

Art Unit: 2162

incorporating records that qualifies as a nearest neighbor of the first program record, a distance measurement method with the system of Apte. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Vanechanos' system the enhanced data retrieval capability with nearest neighbor and distance measure method in the data retrieval system.

With respect to claim 10, Vanechanos discloses, receiving a first program record (80, item #, 82, topic, 84, description, fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21) corresponding to a first program, wherein the first program record includes at least one key field (for instance, item #, topic, description, fig. 5), (fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21, each search parameter (key field) is inputted from fig. 5), retrieving a plurality of program records from a database (92, search, fig. 5, by clicking search button), wherein at least one of the program records includes at least one key field (for instance, item #, topic, description, fig. 5), converting each key field of the first program. record (item #, topic, description, fig. 5) into a feature value (item # =1, topic=2, description=3, col. 8, lines 22-67, for instance, item number is converted to feature value 2, col. 11, lines 15-41); determining a N number program records of the plurality of program records (90, limit search to, fig. 5, "limit search" specifies one, N. cluster program records search results) that qualifies record using the feature value, (col. 8, lines 22-67 to col. 9, lines 1-18), the key fields of the plurality of program, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18), generating a recommendation of

Art Unit: 2162

the first program based on the second program record, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18). Vanechanos does not explicitly disclose records that qualifies as a nearest neighbor of the first program record, a distance measurement method. However, Apte discloses, "number of clusters k must be specified prior to application. The summary statistic is a mean of the values for each cluster. The individual members of the cluster can have a high variance and the mean may not be a good summary of the nearest neighbor that are typically found I a search procedure, see (col. 2, lines 17-29). And where only the k best keywords of each document are indexed. This reduces the vector size of a document, as well as the computation time for distance measures for a clustering for a clustering method, see (col. 4, lines 21-41). This teaches that data clustering based on nearest neighbor and distance method. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify Vanechanos by incorporating records that qualifies as a nearest neighbor of the first program record, a distance measurement method with the system of Apte. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Vanechanos' system the enhanced data retrieval capability with nearest neighbor and distance measure method in the data retrieval system.

With respect to claim 11, Vanechanos discloses, receiving a first program record (80, item #, 82, topic, 84, description, fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21) corresponding to a first program, wherein the first program record includes at least one

Art Unit: 2162

key field (for instance, item #, topic, description, fig. 5), (fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21, each search parameter (key field) is inputted from fig. 5), retrieving a plurality of program records from a database (92, search, fig. 5, by clicking search button), wherein at least one of the program records includes at least one key field (for instance, item #, topic, description, fig. 5), converting each key field of the first program record (item #, topic, description, fig. 5) into a feature value (item # =1, topic=2, description=3, col. 8, lines 22-67, for instance, item number is converted to feature value 2, col. 11, lines 15-41); determining a cluster program records of the plurality of program records (90, limit search to, fig. 5, "limit search" specifies one, N, cluster program records search results) that qualifies record using the feature value, (col. 8, lines 22-67 to col. 9, lines 1-18), the key fields of the plurality of program, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18), generating a recommendation of the first program based on the second program record, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18). Vanechanos does not explicitly disclose records that qualifies as a nearest neighbor of the first program record, a distance measurement method. However, Apte discloses, "number of clusters k must be specified prior to application. The summary statistic is a mean of the values for each cluster. The individual members of the cluster can have a high variance and the mean may not be a good summary of the nearest neighbor that are typically found I a search procedure, see (col. 2, lines 17-29). And where only the k best keywords of each document are indexed. This reduces the vector size of a document, as well as the computation time for distance measures for a clustering for a clustering method, see (col. 4, lines 21-41).

Art Unit: 2162

This teaches that data clustering based on nearest neighbor and distance method. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify Vanechanos by incorporating records that qualifies as a nearest neighbor of the first program record, a distance measurement method with the system of Apte. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Vanechanos' system the enhanced data retrieval capability with nearest neighbor and distance measure method in the data retrieval system.

With respect to claim 17, Vanechanos discloses, receiving a first program record (80, item #, 82, topic, 84, description, fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21) corresponding to a first program, wherein the first program record includes at least one key field (for instance, item #, topic, description, fig. 5), (fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21, each search parameter (key field) is inputted from fig. 5), retrieving a plurality of program records from a database (92, search, fig. 5, by clicking search button), wherein at least one of the program records includes at least one key field (for instance, item #, topic, description, fig. 5), converting each key field of the first program record (item #, topic, description, fig. 5) into a feature value (item # =1, topic=2, description=3, col. 8, lines 22-67, for instance, item number is converted to feature value 2, col. 11, lines 15-41); determining a second, that qualifies record using the feature value, (col. 8, lines 22-67 to col. 9, lines 1-18), the key fields of the plurality of program, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18), generating a

recommendation of the first program based on the second program record, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18). Vanechanos does not explicitly disclose records that qualifies as a nearest neighbor of the first program record, a distance measurement method. However, Apte discloses, "number of clusters k must be specified prior to application. The summary statistic is a mean of the values for each cluster. The individual members of the cluster can have a high variance and the mean may not be a good summary of the nearest neighbor that are typically found I a search procedure, see (col. 2, lines 17-29). And where only the k best keywords of each document are indexed. This reduces the vector size of a document, as well as the computation time for distance measures for a clustering for a clustering method, see (col. 4, lines 21-41). This teaches that data clustering based on nearest neighbor and distance method. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify Vanechanos by incorporating records that qualifies as a nearest neighbor of the first program record, a distance measurement method with the system of Apte. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Vanechanos' system the enhanced data retrieval capability with nearest neighbor and distance measure method in the data retrieval system.

With respect to claim 18, Vanechanos discloses, receiving a first program record (80, item #, 82, topic, 84, description, fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21)

corresponding to a first program, wherein the first program record includes at least one key field (for instance, item #, topic, description, fig. 5), (fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21, each search parameter (key field) is inputted from fig. 5), retrieving a plurality of program records from a database (92, search, fig. 5, by clicking search button), wherein at least one of the program records includes at least one key field (for instance, item #, topic, description, fig. 5), converting each key field of the first program record (item #, topic, description, fig. 5) into a feature value (item # =1, topic=2, description=3, col. 8, lines 22-67, for instance, item number is converted to feature value 2, col. 11, lines 15-41); determining a N number program records of the plurality of program records (90, limit search to, fig. 5, "limit search" specifies one, N, cluster program records search results) that qualifies record using the feature value, (col. 8, lines 22-67 to col. 9, lines 1-18), the key fields of the plurality of program, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18), generating a recommendation of the first program based on the second program record, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18). Vanechanos does not explicitly disclose records that qualifies as a nearest neighbor of the first program record, a distance measurement method. However, Apte discloses, "number of clusters k must be specified prior to application. The summary statistic is a mean of the values for each cluster. The individual members of the cluster can have a high variance and the mean may not be a good summary of the nearest neighbor that are typically found I a search procedure. see (col. 2, lines 17-29). And where only the k best keywords of each document are indexed. This reduces the vector size of a document, as well as the computation time

Art Unit: 2162

for distance measures for a clustering for a clustering method, see (col. 4, lines 21-41). This teaches that data clustering based on nearest neighbor and distance method. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify Vanechanos by incorporating records that qualifies as a nearest neighbor of the first program record, a distance measurement method with the system of Apte. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Vanechanos' system the enhanced data retrieval capability with nearest neighbor and distance measure method in the data retrieval system.

With respect to claim 19, Vanechanos discloses, receiving a first program record (80, item #, 82, topic, 84, description, fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21) corresponding to a first program, wherein the first program record includes at least one key field (for instance, item #, topic, description, fig. 5), (fig. 5, col. 7, lines 53-67 to col. 8, lines 1-21, each search parameter (key field) is inputted from fig. 5), retrieving a plurality of program records from a database (92, search, fig. 5, by clicking search button), wherein at least one of the program records includes at least one key field (for instance, item #, topic, description, fig. 5), converting each key field of the first program record (item #, topic, description, fig. 5) into a feature value (item # =1, topic=2, description=3, col. 8, lines 22-67, for instance, item number is converted to feature value 2, col. 11, lines 15-41); determining a cluster program records of the plurality of program records (90, limit search to, fig. 5, "limit search" specifies one, N, cluster

Art Unit: 2162

program records search results) that qualifies record using the feature value, (col. 8, lines 22-67 to col. 9, lines 1-18), the key fields of the plurality of program, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18), generating a recommendation of the first program based on the second program record, see (col. 7, lines 27-67 to col. 8, lines 1-67 to col. 9, lines 1-18). Vanechanos does not explicitly disclose records that qualifies as a nearest neighbor of the first program record, a distance measurement method. However, Apte discloses, "number of clusters k must be specified prior to application. The summary statistic is a mean of the values for each cluster. The individual members of the cluster can have a high variance and the mean may not be a good summary of the nearest neighbor that are typically found I a search procedure, see (col. 2, lines 17-29). And where only the k best keywords of each document are indexed. This reduces the vector size of a document, as well as the computation time for distance measures for a clustering for a clustering method, see (col. 4, lines 21-41). This teaches that data clustering based on nearest neighbor and distance method. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify Vanechanos by incorporating records that qualifies as a nearest neighbor of the first program record, a distance measurement method with the system of Apte. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a modification because that would provide Vanechanos' system the enhanced data retrieval capability with nearest neighbor and distance measure method in the data retrieval system.

Art Unit: 2162

### Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### **Contact Information**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac M Woo whose telephone number is (571) 272-4043. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IMW May 16, 2005

JEAN M. CORRIELUS PRIMARY EXAMINER